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Sommario/riassunto	Quantum mechanics is a physical theory for objects of the microcosm, e.g. for atoms or electrons. It has proven itself so far, but leads to the fact that we have to grant properties and relations to these objects, which are neither compatible with our common sense nor with the concepts of classical physics. These peculiarities are presented and their significance for our cognitive faculty and for a world view is discussed. This Springer essential is a translation of the original German 1st edition essentials, Über die Merkwürdigkeiten der Quantenmechanik by Josef Honerkamp, published by Springer Fachmedien Wiesbaden GmbH, part of Springer Nature in 2020. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation. Springer Nature works continuously to further the development of tools for the

production of books and on the related technologies to support the authors. The content Emergence or supervenience Objects, features, relations Concepts in classical physics Oddities in quantum mechanics The Target Groups People interested in natural science and philosophy Philosophers, physicists The Author Josef Honerkamp taught for more than 30 years as a professor of theoretical physics and did research in the fields of quantum field theories, statistical mechanics, nonlinear systems, and stochastic dynamical systems in Hamburg, Bonn, and Freiburg. Since his retirement, he has tried to make the beauty and consistency of physical theories understandable to non-physicists.